



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,415	05/09/2001	Shunpei Yamazaki	12732-036001/US4906	1902

26171 7590 06/16/2004

FISH & RICHARDSON P.C.  
1425 K STREET, N.W.  
11TH FLOOR  
WASHINGTON, DC 20005-3500

EXAMINER

KOVALICK, VINCENT E

ART UNIT	PAPER NUMBER
----------	--------------

2673

DATE MAILED: 06/16/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/851,415

**Applicant(s)**

YAMAZAKI ET AL.

**Examiner**

Vincent E Kovalick

**Art Unit**

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2004.  
2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.  
    4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 1-38 and 40-41 is/are allowed.  
6) ☒ Claim(s) 39 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
    a) ☒ All    b) ☐ Some \* c) ☐ None of:  
        1. ☒ Certified copies of the priority documents have been received.  
        2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11&amp;12-1/3&amp;3/25/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office Action is in response to Applicant's Amendment dated January 23, 2004 in response to USPTO Office Action dated September 23, 2003. The amendments to claims 1, 3, 21, 23, 26, 36, 39 and 40 and Applicant's remarks have been reviewed and entered in the record.

Applicant's arguments filed January 23, 2004 have been fully considered but they are not persuasive. Regarding Applicant's remarks relative to claim 39 indicating that "neither Harken, Katagiri, Ishii, nor any combination of the three, describes or suggests the recited pixel portion" Harken clearly teaches a sensor including a Liquid Crystal Display (col. 9, lines 15-18 and Fig. 6, item 70). The structure of the pixel portion comprising a pixel thin film transistor having a source region, a drain region and a gate electrode with a source signal line connected to the source region; a LC element and a storage capacitor connected to the drain region; a gate signal line connected to the gate electrode; and a capacitance line connected to the storage capacitor is in common practice and well known in the art. Ishii teaches a system comprising a flash memory (col. 3, lines 52-53; col. 11, lines 52-55 and Fig. 6, item 38); and Ishii teaches the adaptation of a flash memory which facilitates storing blocks of data, such as a block of data associated with the identification of a person by his fingerprint/s, said flash memories being available in cards that can be readily adapted to systems; Katagiri et al. teaches an image sensor composed of photo-diodes formed at grid points of a LCD panel (col. 6, lines 43-51)

Art Unit: 2673

*Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harkin (USP 6,327,376) taken with Katagiri et al. (USP 5,966,112) in view of Ishii (USP 6,594,505).

Relative to claim 39, Harkin **teaches** an electronic apparatus comprising a fingerprint sensing device (col. 2, lines 39-67; col. 3, lines 1-67; col. 4, lines 10-67 and col. 5, lines 1-30); Harkin further **teaches** a mobile information communication device (col. 10, lines 1-28 and Figs. 7-8); and a liquid crystal display(LCD) device (item 70 in Figs. 7-8) provided in said mobile information communication device; said liquid crystal.

Harkin **does not specifically teach** said liquid crystal display including a pixel portion having a plurality of pixels, each of said pixels comprising: a pixel thin film transistor having a source region, a drain region and a gate electrode; a source signal line connected to the source region; a liquid crystal element and a storage capacitor connected to the drain region; a gate signal line connected to the gate electrode; and a capacitance line connected to the storage capacitors, said pixel portion as described being well known in the makeup of liquid crystal display devices.

Because said structure is in common practice and well know in the art, it would have been obvious to a person of ordinary skill in the art at the time of the invention that said pixel panel as described hereinabove would have been included in the LCD as taught by Harkin.

Art Unit: 2673

Harkin **does not teach** a flash memory, wherein said LCD comprises photo diodes provided for respective pixels, and wherein said flash memory is stored with individual information of a user.

Harkin teaches an electronic apparatus comprising a LCD and a finger print sensing device.

Ishii **teaches** a mobile telephone system capable of coping with a variety of mobile radio telephone systems (col. 2, lines 11-67 and col. 3, lines 1-27 and Fig. 1); Ishii further **teaches** said system comprising a flash memory wherein the said flash memory is stored with individual information of a user (col. 3, lines 52-54; col. 11, lines 52-55 and Fig. 6, item 38).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Harkin the feature as taught by Ishii in order to provide a nonvolatile storage means for storing data secured from being accidentally purged.

Harkin taken with Ishii **does not teach** said LCD comprising photo diodes provided for respective pixels.

Harkin taken with Ishii teaches a liquid crystal device provided in a mobile information communication device wherein the said LCD comprises photo diodes provided for respective pixels.

Katagiri et al. **teaches** an integrated image-input type display unit (col. 2, lines 66-67; col. 3, lines 1-67 and col. 4, lines 1-48); Katagiri et al further **teaches** a LCD comprising photo diodes provided for respective pixels (col. 6, lines 43-52).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Harkin taken with Ishii the feature as taught by Katagiri et al. in order to provide a solid state image display device that lends itself to application in miniature hand-held electronic devices.

*Allowable Subject Matter*

4. Claims 1-38 and 40-41 allowed.

5. The following is an examiner's statement of reasons for allowance:

Relative to claims 1, 3, 21, 23 and 40, the major difference between the teachings of the prior art of record (Harkin; Katagiri et al. and Ishii) and that of the instant invention is that said prior art of record **does not teach** a built in image sensor, or an image sensor constructed of photo diodes comprising a first thin film transistor having a first source region, a first drain region and a first gate electrode; a sensor gate signal line connected to the first gate electrode; a sensor output wiring connected to one of the first source and drain regions; a second thin film transistor having a second source region, a second drain region and a second gate electrode; a reset gate signal line connected to the second gate electrode; and a sensor power source line connected to the second drain region; a storage device; a module for judging whether the user can be identified or not by comparing individual information read by said image sensor with individual information stored in said storage device and a module for transmitting a result of the authentication via the Internet; or a means for collating individual information read by said image sensor with user's individual information stored in a flash memory.

Regarding claims 26 and 36, the major difference between the teachings of the prior art of record (Harkin; Katagiri et al. and Ishii) and that of the instant invention is that said prior art of record **does not teach** a user identity authentication method using a mobile information communication device provided with a liquid crystal display device having first and second front lights and comprising a built-in image sensor, said method comprising: a step of reading individual information of a use with said image sensor when the first front light is lit up; a step of

Art Unit: 2673

displaying an image when the second front light is lit up; and a step of authenticating a user's identity based on said individual information or a step of transmitting said individual information via the Internet; wherein the first and second front lights are not lit up simultaneously.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No. 6,456,279 Kubo et al.

U. S. Patent No. 6,476,374 Kozlowski et al.

U. S. Patent No. 6,070,796 Sibuet

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2673

***Responses***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E Kovalick whose telephone number is 703 306-3020. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703 305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vincent E. Kovalick  
May 20, 2004



BIPIN SHALWALA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600